

AGREEMENT FOR THE
EXCHANGE OF TECHNICAL INFORMATION
AND COOPERATION IN THE FIELD
OF UNDERGROUND COAL GASIFICATION
BETWEEN THE UNITED STATES DEPARTMENT OF
ENERGY AND COMPANHIA AUXILIAR DE
EMPRESAS ELETRICAS BRASILEIRAS

WHEREAS, the United States Department of Energy (DOE) and the Companhia Auxiliar de Empresas Eletricas Brasileiras (CAEEB) (hereinafter referred to as the "Parties") wish to initiate close and long-term cooperation in the field of underground coal gasification (UCG);

WHEREAS DOE and CAEEB and CAEEB's designated representative have a mutual interest in the development of UCG technology utilizing a site for test designated by CAEEB's designated representative after consultation with DOE and CAEEB, and to have joint access to the data developed on this technology;

WHEREAS, Brazil and the United States have agreed to consult on matters of common interest including energy technology; and whereas a number of proposed activities were agreed to by a Joint Consulting Group on Energy Technology (JCET) in 1976 and reaffirmed in 1978;

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IT IS AGREED AS FOLLOWS:

ARTICLE 1 - OBJECTIVE

The objective of cooperation under this Agreement is to undertake a joint analytical and test program (hereinafter referred to as the "Program") in UCG technology, as described in the Memorandum of Understanding for the development of technology utilizing the site of the Triunfo coal deposits in Rio Grande do Sul.

ARTICLE 2 - PROGRAM

The Program shall consist of three phases of work: 1) coal and site characterization; 2) test design and feasibility studies; and, 3) test operations and evaluation.

2.1 Coal and Site Characterization

2.1.1 DOE agrees to:

- a. Provide to CAEEB and CAEEB's designated representative information concerning geologic specifications for coal resources necessary to utilize DOE-developed underground coal gasification technological processes.

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- b. Provide preliminary evaluation of information and laboratory analyses of samples of Brazilian coals provided by CAEEB's designated representative to define the suitability of Brazilian coals for use of DOE-developed underground coal gasification technological processes.
- c. Provide as necessary technical experts on site in Brazil while CAEEB's designated representative performs site characterizations.
- d. Provide information to assist Brazilian engineers to select cost effective and suitable site characterization methods and tools, and
- e. Provide technical experts for assistance in evaluation of site characterization data to assist CAEEB's designated representative in developing a preliminary design process.

2.1.2 CAEEB through its designated representative agrees to:

- a. Provide data necessary for DOE to provide the evaluation in 2.1.1.b. above.

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- b. Be responsible for actual site characterization studies and field tasks such as drilling and seismic studies during which DOE shall provide technical experts as set forth in 2.1.1.c.
- c. Provide as necessary manpower and funding to perform actual coal and site characterization tasks for which DOE shall provide technical experts as set forth in 2.1.1.c. above.

2.2 Test and design and feasibility

2.2.1 DOE agrees to:

Provide information and technical experts to CAEEB team in preparation of the preliminary design of a field test program for an actual field test.

2.2.2 CAEEB through its designated representative agrees to:

Be fully in charge of the preliminary feasibility test program and the actual performance thereof, and for all subcontracting resulting from this agreement.

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2.3 Test Operations and Evaluation

2.3.1 DOE agrees:

- a. To provide technical experts to the CAEEB during the operation and evaluation of an underground coal gasification test.
- b. May provide, on loan, data acquisition hardware and software and related instrumentation to assist in monitoring test performance.

2.3.2 CAEEB through its designated representative agrees:

To provide DOE all information on the preliminary design of a field test and the results therefrom.

ARTICLE 3 - SUPERVISION

1. To supervise the execution of this Agreement, a DOE/CAEEB Joint Coordinating Committee shall be established. The Joint Coordinating Committee shall consist of up to four members, half of whom shall be appointed by each Party. This Committee shall meet each year alternately in the United States and in Brazil, or at other agreed times and places. The Head of the Delegation of the Receiving Party shall act as Chairman during meetings of the Committee. In addition, each Party shall have the right to invite advisors to such meetings, as necessary.

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2. At its meetings, the Joint Coordinating Committee shall evaluate the status of cooperation under this Agreement. This evaluation shall include an assessment of the balance of exchange in the various areas of cooperation listed in Article 2 and, if necessary, a consideration of measures required to correct any imbalances.

ARTICLE 4 - INFORMATION

1. General

The Parties support the widest possible dissemination of information provided or exchanged under this Agreement, subject to the need to protect proprietary information exchanged hereunder, and to the provisions of Article 6. Such information may be made available to the public by either Party through customary channels and in accordance with normal procedures of the Parties.

2. Use of Proprietary Information

A. Definitions as used in this Agreement:

- (i) The term "information" means scientific or technical data, results or methods of research and development and any other information intended to be provided or exchanged under this Agreement;

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(ii) The term "proprietary information" means information acquired prior to or outside this Agreement which contains trade secrets or commercial or financial information which is privileged or confidential, and may only include such information which:

- a) has been held in confidence by its owner;
- b) is of a type which is customarily held in confidence by its owner;
- c) has not been transmitted by the transmitting Party to other entities (including the receiving Party) except on the basis that it be held in confidence; and
- d) is not otherwise available to the receiving Party from another source without restriction on its further dissemination.

B. Procedures

- (i) A Party receiving proprietary information pursuant to this Agreement shall respect the privileged nature thereof. Any

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document which contains proprietary information shall be clearly marked with the following (or substantially similar) restrictive legend:

"This document contains proprietary information furnished in confidence under an Agreement dated January 21, 1955 between the United States Department of Energy and the Companhia Auxiliar de Empresas Eletricas Brasileiras and shall not be disseminated outside these organizations, their contractors, and the concerned departments and agencies of the governments of the U.S. and Brazil without prior approval of _____.

This notice shall be marked on any reproduction hereof, in whole or in part. These limitations shall automatically terminate when this information is disclosed by the owner without restriction."

(ii) Proprietary information received in confidence under this Agreement may be disseminated by the receiving Party to:

- a) persons within or employed by the receiving Party, and concerned Government departments and Government agencies in the country of the receiving Party; and

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b) prime or subcontractors of the receiving Party located within the geographical limits of the receiving Party's Nation, for use only within the framework of their contracts with the receiving Party in work relating to the subject matter of the proprietary information, provided that any proprietary information so disseminated shall be pursuant to an agreement of confidentiality and shall be marked with a restrictive legend substantially identical to that appearing in subparagraph 2.B (i) above.

(iii) With the prior written consent of the Party providing proprietary information under this Agreement, the receiving Party may disseminate such proprietary information more widely than otherwise permitted in the foregoing subsection (ii). The Parties shall cooperate with each other in developing procedures for requesting and obtaining approval for such wider dissemination, and each Party shall grant such approval to the extent permitted by its national policies, regulations and laws.

C. Each Party shall exercise its best efforts to ensure that proprietary information received by it under this Agreement is controlled as provided herein. If one of the Parties becomes aware that it will be, or may reasonably become, unable to meet the

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nondissemination provisions of this Article, it shall immediately inform the other Party. The Parties shall thereafter consult to define an appropriate course of action.

- D. Information arising from seminars and other meetings arranged under this Agreement shall be treated by the Parties according to the principles specified in this Article; provided, however, no proprietary information orally communicated shall be subject to the limited disclosure requirements of this Agreement unless the individual communicating such information informs the recipient as to the proprietary character of the information communicated.
- E. Nothing contained in this Agreement shall preclude the use or dissemination of information received by a Party other than pursuant to this Agreement.

ARTICLE 5 - SUITABILITY OF INFORMATION

Information transmitted by one Party to the other Party under this Agreement shall be accurate to the best knowledge and belief of the transmitting Party, but the transmitting Party does not warrant the suitability of the information transmitted for any particular use or application by the receiving Party or by any third party.

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ARTICLE 6 - INVENTION OR DISCOVERY

6.1 With respect to any invention or discovery made or conceived in the course of or under this Agreement:

- A. CAEEB shall acquire all right, title and interest in and to any such invention or discovery in its own country, subject to a nonexclusive, irrevocable, royalty-free license to DOE, its Government and its nationals designated by it;
- B. DOE shall acquire all right, title and interest in and to any such invention or discovery in its own country, subject to a nonexclusive, irrevocable, royalty-free license to CAEEB, its Government and its nationals designated by it; and
- C. In third countries:
 - a. With respect to any invention or discovery that relates to the equipment provided by DOE, DOE shall acquire all right, title and interest in and to any such invention or discovery, subject to a nonexclusive, irrevocable, royalty-free license to CAEEB, its Government and its nationals designated by it; and

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b. With respect to any other invention or discovery made or conceived in the course of or under this Agreement, the inventing Party shall acquire all right, title and interest in and to any such invention or discovery, subject to a nonexclusive, irrevocable, royalty-free license to the other Party, its Government and its nationals designated by it.

6.2 Information regarding inventions on which patent protection is to be obtained by a Party shall not be published or publicly disclosed by the other Party until a patent application has been filed, provided, however, that this restriction on publication or disclosure shall not extend beyond six months from the date of receipt of such information. It shall be the responsibility of the inventing Party to appropriately mark reports which disclose inventions that have not been appropriately protected by the filing of a patent application.

6.3 Each Party shall, without prejudice to any rights of inventors under its national laws, take all necessary steps to provide the cooperation from its inventors required to carry out the provisions of this Article. Each Party shall assume the responsibility to pay awards or compensation required to be paid to its own nationals according to its own laws.

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ARTICLE 7 - COPYRIGHTS

Copyrights of the Parties shall be accorded treatment consistent with internationally recognized standards of protection. As to copyrights on materials within the scope of paragraph 1 of Article 4 above owned or controlled by a Party, that Party shall make efforts to grant to the other Party a license to reproduce or translate copyrighted material.

ARTICLE 8 - TRANSPORTATION, INSURANCE AND USE OF EQUIPMENT

Both Parties agree that in the event equipment is to be exchanged or supplied by one Party to the other, the following provisions shall apply covering the shipment and use of agreed equipment.

1. The sending Party shall supply as soon as possible a detailed list of the equipment to be provided together with the relevant specifications and technical and informational documentation.
2. The equipment and necessary spare parts supplied by the sending Party shall remain its property and shall be returned to the sending Party upon completion of the work unless otherwise agreed.
3. The above-mentioned equipment shall be brought into operation at the host establishment only by mutual agreement between the

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Parties or between their senior representatives or executives at the host establishment.

4. The host establishment through its designated representative shall provide the necessary premises for the equipment and shall provide for electric power, water, gas, etc., in accordance with technical requirements which shall be as mutually agreed.
5. Responsibility and expenses for the transport of equipment and instrumentation from the United States to the site in Brazil accompanied by personnel chosen by DOE, for return from the site to the original point of departure in the United States accompanied by personnel chosen by DOE, and for the safekeeping and insurance en route for such equipment and instrumentation shall rest with DOE. Responsibility and expenses for the safekeeping of the equipment and instrumentation on site in Brazil and during normal operation on site and insurance related thereto shall rest with CAEEB.
6. Responsibility and expenses for the transport of equipment and instrumentation from Brazil to the site in the United States accompanied by personnel chosen by CAEEB, for return from the site to the original point of departure in Brazil accompanied by personnel chosen by CAEEB, and for the safekeeping and insurance en route for such equipment and instrumentation shall rest with

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CAEEB. Responsibility and expenses for the safekeeping of the equipment and instrumentation on site in the United States and during normal operation on site and insurance related thereto shall rest with DOE.

7. The equipment provided by the sending Party shall be considered to be scientific, not having a commercial character.

ARTICLE 9 - EXCHANGES OF STAFF.

The following provisions shall apply concerning exchanges of staff:

1. Whenever an exchange of staff is contemplated under this Agreement, each Party shall ensure the selection of adequate staff with skills and competence necessary to conduct the agreed upon cooperation. Each such attachment of staff shall be the subject of a separate attachment agreement between the Parties.
2. Each Party shall be responsible for the salaries, insurance and allowances to be paid to its staff.
3. Each Party shall pay for the travel and living expenses of its staff when staying at the establishment of the host Party unless otherwise agreed.

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4. The host establishment shall arrange for comparable accommodations for the other Party's staff and their families on a mutually agreeable reciprocal basis.
5. Each Party shall provide all necessary assistance to the staff of the other Party as regards administrative formalities.
6. The staff of each Party shall conform to the general rules of work and safety regulations in force at the host establishment, or as agreed in separate attachment agreements.

ARTICLE 10 - OTHER AGREEMENTS OR ARRANGEMENTS

The provisions of the Agreement shall not affect the rights or duties of the Parties hereto under other agreements or arrangements. This Agreement also in no way precludes commercial firms or other legally constituted enterprises in each of the two countries from engaging in commercial dealings in accordance with the applicable laws of each country; nor does it preclude the Parties from engaging in activities with other governments or persons. Moreover, it is expected that the present Agreement should facilitate industrial and commercial exchanges in the field of underground coal gasification between the firms of the countries of the Parties with a view to mutual benefits from such exchanges for both countries.

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ARTICLE 11 - QUESTIONS

Cooperation under this Agreement shall be in accordance with laws and regulations of the respective countries. All questions related to this Agreement arising during its term shall be settled by the Parties by mutual agreement. Compensation for damages incurred during the implementation of this Agreement shall be in accordance with the applicable laws of the countries of the Parties.

ARTICLE 12 - AVAILABILITY OF FUNDS

Unless otherwise mutually agreed in writing, each Party and its respective designated representatives shall bear the costs of its participation in the activities under this Agreement. It is understood that the obligation of the Parties to carry out their commitments is subject to the availability of appropriated funds. Neither Party shall commit the other Party to any expenditure of funds without prior approval.

ARTICLE 13 - ENTRY INTO FORCE

1. This Agreement shall enter into force upon signature, shall continue for a five-year period, and may be extended by mutual agreement of the Parties. The implementation and progress under this Agreement may be subject to annual review by the parties. This Agreement may be terminated at any time at the discretion of either Party, upon six

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months advance notification in writing by the Party seeking to terminate the Agreement. Such termination shall be without prejudice to the rights which may be accrued this Agreement to either Party up to the date of such termination.

2. All activities not completed at the termination of this Agreement may be continued until their completion under the terms of this Agreement.

Done at Brasilia in duplicate in the English and Portuguese languages, each equally authentic, this 21st day of January, 1985 ^{KNF}

FOR THE UNITED STATES
DEPARTMENT OF ENERGY

FOR THE BRAZILIAN COMPANHIA AUXILIAR
DE EMPRESAS ELETRICAS BRASILEIRAS

NAME:

Keith N. Frye

NAME:

Yusuf...

TITLE:

Deputy Assistant Secretary
for
Oil, Gas, Shale and
Coal Liquids

TITLE: PRESIDENT

FINANCIAL AND INTERNATIONAL COOPERATION
DIRECTOR

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